HINTS FOR AMATEUR PHOTOGRAPHERS
BY JOHN LE COUTEUR

My remarks last month on toning, has brought in so many enquiries that I reproduce Ilford's method for the benefit of those who may not possess the full notes issued by the makers of one of the best papers known.

The tone which is most easily produced with certainty of result and uniformity, and which is most suitable for the greatest range of subject, is that which is known as a photographic purple—a purple-black. To be successful the operations must be uniform time after time. If the prints ought to remain ten minutes in a solution or washing water, they must not be given only three or four minutes on one occasion, and perhaps half an hour on another. The work must be consistently done in the right way, and without variation of any kind. All chemicals should be carefully weighed and measured, all operations timed, and the process should be continuous until finished.

For a print of a purple-black tone the printing must be somewhat deeper than it is desired that the finished picture should be, as the subsequent operations reduce it. It is difficult to state to what depth the printing must be carried, but it would be most instructive for the beginner to make three or more prints from the same negative, the first a shade deeper than the finished print should be, and the others progressively a little deeper. These, when toned, should prove reliable guides to the depth of printing necessary. After printing, the prints should be kept in an empty P.O.P. envelope until ready for toning.

Before beginning toning operations, the toning bath should be made up from the following stock solutions:—

No. 1. Sulphocyanide Stock Solution.

Ammonium Sulphocyanide 100 grains.
Water - - - - - - - - 10 ounces.

This solution keeps in good condition for a considerable time, and is fit to use as long as there is no deposit visible when the bottle is gently shaken. The sulphocyanide is a very deliquescent salt—rapidly absorbing moisture

from the air, therefore only a small quantity should be bought at a time, and this should be kept in a tightly corked bottle. It would be better for the amateur who uses only a little at a time to get his photographic dealer to make up this solution for him. In case only damp sulphocyanide should be at hand, a little more of it must be taken to compensate for the water which, it is obvious, will be weighed with the salt.

No. 2. Sulphite Stock Solution is only used for obtaining warm tones and requires considerable experience to work successfully; it will, therefore, not be dealt with here.

No. 3 Gold Stock Solution.

Gold Chloride, 15 grains.
Water - - - 15 ounces.

Put a 15 grain tube of gold, of a good brand, in a bottle, give the bottle a sharp shake which will break the tube, and add 15 ounces of ordinary cold water, but, if it is intended to keep the solution for a long time and the chemical purity of the water is doubtful, distilled water should be used. This solution is in good condition so long as there is no deposit.

The toning bath should be mixed before the prints are put into the first washing water, that is to say about half an hour before use. The Toning Bath is made up of

No. 1 Stock Solution, 2 ozs.
Water - - - - 16 ozs.
No. 3 Stock Solution, 2 ozs.

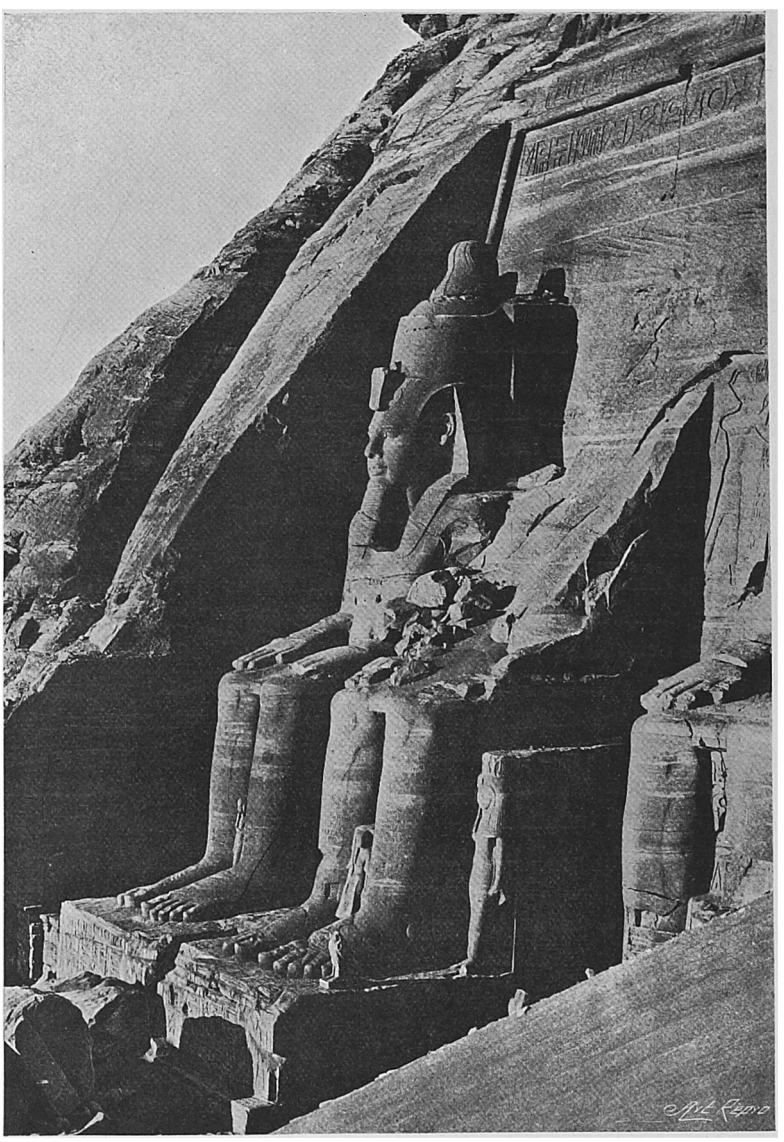
Add these exactly in the order given.

This quantity of solution will tone about twenty cabinet or thirty-six quarter-plate prints. Only a sufficient quantity of bath should be made up for the prints to be toned. For instance if there are five cabinet prints then only a quarter of the amount given should be mixed. The rule is to allow one ounce of toning solution for each cabinet print or its equivalent.

The prints are first washed for ten minutes in clean water to thoroughly eliminate the free salts from the paper. They should be kept in motion the whole time, being turned alternately face up and face down, the water being frequently changed.

When the prints are washed they should be passed one by one into the following hardening bath, and kept in motion in it for ten minutes:

Alum (Powdered) - - 1½ ounces.
Salt (Common) - - - 1 ounce.
Water - - - - - - - 20 ounces.



FROM A PHOTOGRAPH BY A. BARTON KENT

This solution may be used for two or three batches, but it is desirable to make up a quantity and use a fresh portion on each occasion.

The Alum bath *may* be omitted, which of course saves time, but it is not advisable to do this. The prints are then washed for ten minutes and are ready for toning.

The prints, face upwards, should be placed in the toning solution, one at a time in rapid succession, each one being immersed, until there are as many prints in the bath as have been allowed for, in the proportion of one ounce of solution to each cabinet print. If only a few small prints were put into twenty ounces of solution, these prints would take up too much gold, and unduly exhaust the bath, while the tone would be unsatisfactory. A purple-black tone should be arrived at in from six to ten minutes; and the prints should be withdrawn from the bath when only a little red is discernible in the deepest shadows, when looked through by ordinary or incandescent gas, electric, or lamp light. Of course toning can be done in subdued daylight, but artificial light enables the tones to be judged with greater certainty. The prints will seem much overtoned on the surface and in the light parts, but this appearance must be ignored, as the fixing and drying will alter it.

If toning takes less than six minutes the tone will not be quite so rich, and if it is very rapid the prints will possibly show rusty half-tones. If toning should take longer than ten minutes, there is a risk of obtaining tones which are too warm in the shadows, while the light parts are over-done, and this may also be accompanied by pinkiness in the lightest half-tones, as in the sky of a landscape. When the toning seems inclined to be rather slow, pour the toning solution into a measure and add a little more of No. 3 Stock Solution.

After toning, wash the prints for from five to ten minutes to free them from all traces of the toning solution, and then immerse them for ten minutes in:

Sodium Hyposulphite - 3 ounces.
Water - - - - - - 20 ounces.

They must be kept in motion all the time they are in this solution to ensure thorough fixation, and it is important that the fixing bath be always of the same strength, and that the same time be allowed in it, as longer fixing would make the prints perceptibly lighter—this may of course be taken advantage of when any of them are over-printed. It is advisable to make up the fixing bath at least some hours before use, so that it may have time to attain about the same temperature as the other solutions. Hypo dissolved in cold water makes a solution of an extremely low temperature. If, however, a fixing bath should be required for immediate use, some hot water may be employed in order to get the right temperature.

The fixing bath should not be handled until the prints are toned, washed, and ready for fixing, and then it is better to fix them in a place away from that in which the previous operations are carried out, in order to avoid all risk of staining the prints by contamination with hypo, the slightest trace of which in any of the washing waters, etc., will cause a yellow discoloration, or irregular brownish-green stains. It is impossible to remove stains caused in this manner.

When the prints are fixed, they should be washed by hand in plenty of water, being kept continually moving for from five to ten minutes, afterwards they should be washed for from one to two hours, and be occasionally turned over in the water which should be often changed. It is more harmful than otherwise to wash them for longer than this.

To dry the prints all that is necessary is that the gelatine surface should not come in contact with anything which might adhere to it, and that the back of the print should rest on a clean material—a clean towel is as suitable as anything—on which the prints should be laid face upwards in a place free from dust. They may also be dried by pinning them by one corner to the edge of a shelf or table with ordinary household pins.

We are favoured by Mr. A. Barton Kent by two pictures, which were selected from a large number of very fine photographs taken by Mr. Kent, who is one of the most painstaking, and therefore successful, amateurs.